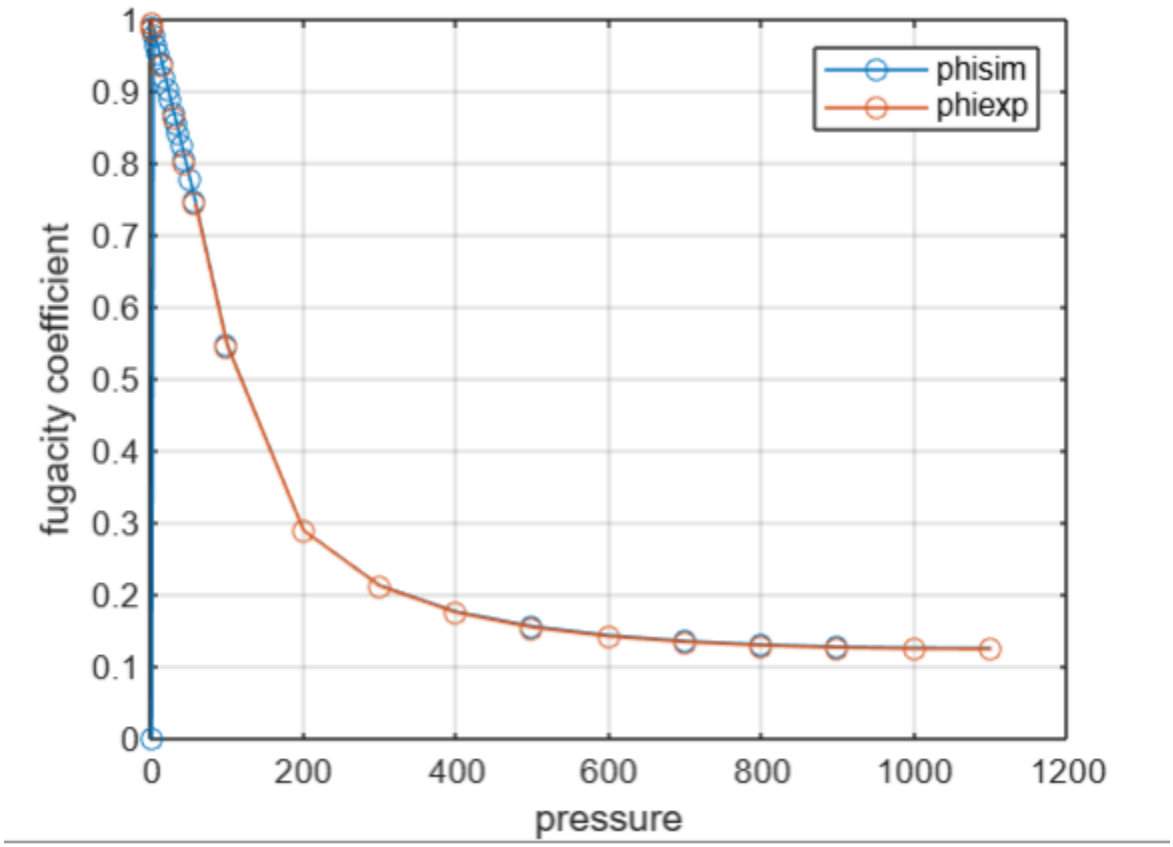
CHE221

SIMULATION LAB 6

-PRAGATI PATEL (230765) UG CHE

1)

Phi_sim and Phi_exp match very well with minor deviations at lower pressures.The experimental data tells us about real gas more precisely whereas phi_sim assumes ideal reference conditions.Real gas behaviour is not fully captured by Z.Also,there may be some uncertainties in experimental data.Also we followed trapz() for numerical integration which also introduces small approximations.



2 and 3)

There is slight deviation in delta_g at higher pressures as van der Waals gas also have limitations in accurately predicting real gas behaviour at higher pressure.
Also we followed trapz() for numerical integration which also introduces small approximations.

The van der Waals EOS provides a reasonable approximation but does not fully capture real gas effects at high pressures.